

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/095660 A1

(51) International Patent Classification⁷: **H01S 3/109**,
3/042

(21) International Application Number:
PCT/IB2004/001197

(22) International Filing Date: 21 April 2004 (21.04.2004)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
TO2003A000317 23 April 2003 (23.04.2003) IT

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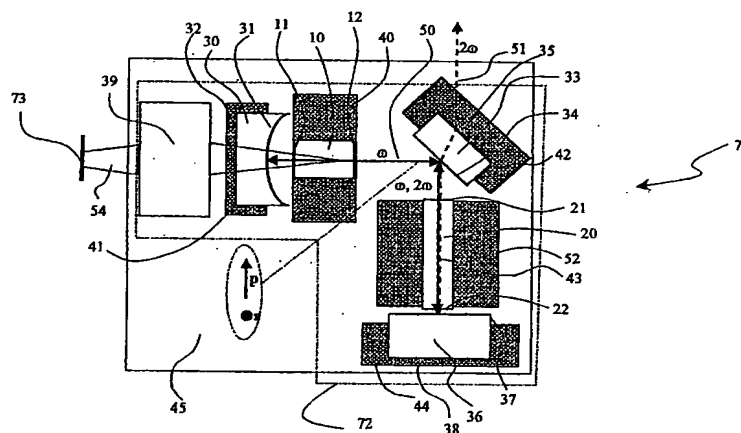
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: LASER APPARATUS FOR GENERATING A VISIBLE LASER BEAM



(57) Abstract: A diode pumped laser apparatus for generating a visible power beam, of the type comprising: - a miniaturised linear laser cavity (72) with very low losses, comprising at least the following optical elements (30,33,36,10,20): reflecting means (30;33;36), highly reflecting at a fundamental wavelength, at least one of said reflecting means (33) being traversed by a pumping beam (55), at least one of said reflecting means (36) reflecting at the fundamental wavelength and at the second harmonic wavelength and at least one of said reflecting means (33) being highly transmissive at the second harmonic (51) wavelength of said fundamental wavelength; an active material (10) with polarized emission and with a gain configuration with small thermal aberration for the cavity mode, said active material (10) being able to generate laser light (50) at a fundamental wavelength; a non linear crystal (20), inside said cavity (72). According to the invention, said non linear crystal (20) is able to generate a second harmonic (51) of said fundamental wavelength by means of type I critical phase matching and said cavity (72) is associated to one or more thermostating means (45;41;42;43;44) to lock in temperature said cavity (72) and its optical elements (30,33,36,10,20), and accurately to set the temperature of the non linear crystal (10). (Figure 1)



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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